

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/001223

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.<sup>7</sup> C07C47/02, C07C53/126, 69/24, C10M105/20, 105/24, 105/34,  
105/38, 129/24, 129/40, 129/70, 129/74, A61K7/00//C10N30:00,  
30:02, 30:08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.<sup>7</sup> C07C47/02, C07C53/126, 69/24-69/33, C10M105/20, 105/24,  
105/34, 105/38, 129/24, 129/40, 129/70, 129/74, A61K7/00//  
C10N30:00, 30:02, 30:08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2005  
Kokai Jitsuyo Shinan Koho 1971-2005 Toroku Jitsuyo Shinan Koho 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CA (STN), CASREACT (STN), REGISTRY (STN)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 57-200325 A (Chemische Werk Hiils AG.), 08 December, 1982 (08.12.82), Claims 1 to 3; examples 2, 3 & US 4460510 A & DE 3121573 A	1-5, 8, 10 6-7, 11-12
X	JP 8-127963 A (Sanyo Chemical Industries, Ltd.), 21 May, 1996 (21.05.96), Claim 1; compound No. 1 (Family: none)	1-4, 6, 8
X	JP 11-61646 A (Sanyo Chemical Industries, Ltd.), 05 March, 1999 (05.03.99), Claim 1; Nos. 2, 3 (Family: none)	1-4, 8

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search  
09 June, 2005 (09.06.05)

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26 July, 2005 (26.07.05)

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/001223

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5488121 A (SILTECH INC.), 30 January, 1996 (30.01.96), Claim 1; example 19 (Family: none)	1-5, 8
X Y	GB 1239394 A (BRITISH PETROLEUM), 14 July, 1971 (14.07.71), Claim 1; example 1 & NL 6811664 A	1-5, 8, 10 6-7
X	JP 8-183724 A (Kao Corp.), 16 July, 1996 (16.07.96), Claim 1; example 1 (Family: none)	1-3, 5, 9
X	US 5639791 A (SILTECH INC.), 17 June, 1997 (17.06.97), Claim 1; example 19 (Family: none)	1-3, 5, 9
Y	KARINEN, R.S. et al., Catalytic synthesis of a novel tertiary ether, 3-methoxy-3-methylheptane, from 1-butene, Journal of Molecular Catalysis A: Chemical, 2000, 152(1-2), 253-255, page 254, left column, formula (1)	11-12
Y	Toshio SAKURAI, "Shinpan Junkatsu no Butsuri Kagaku", Saiwai Shobo, 1978, pages 201 to 204	6-7
Y	Edited by CSJ: The Chemical Society of Japan "Jikken Kagaku Koza 21 Yuki Kagaku III", Dai 4 Han, Maruzen Co., Ltd., 1991, pages 58 to 60	11-12